

REMARKS

The present Amendment amends claims 1, 3-6, 9 and 11-14 and leaves claims 2, 7, 8, 10 and 15-20 unchanged. Therefore, the present application has pending claims 1-20.

The Examiner is requested to contact Applicant's Attorney to schedule an interview prior examination.

Claims 1-20 stand objected to due to informalities noted by the Examiner in paragraph 3 of the Office Action. Various amendments were made to claims 1-20 to correct the informalities noted by the Examiner. Therefore, Applicants submit that this objection overcome and should be withdrawn.

Claims 1, 3, 9 and 11 stand rejected under 35 USC §102(b) as being anticipated by Walker (article entitled "The LOCUS Distributed Operating System"); claims 2, 6, 10, 14 and 17 stand rejected under 35 USC §103(a) as being unpatentable over Walker in view of Fanning (U.S. Patent No. 6,366,907); claims 4 and 12 stand rejected under 35 USC §103(a) as being unpatentable over Walker and further in view of Needham (U.S. Patent Application Publication No. 2002/0188735); claims 5 and 13 stand rejected under 35 USC §103(a) as being unpatentable over Walker and further in view of IBM (article entitled "Logical Data Interface, IBM Technical Disclosure Bulletin") and Intel (article entitled "P2P File-Sharing at work in the Enterprise"); claims 7 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Walker and further in view of Yang (article entitled "Comparing Hybrid Peer-to-peer Systems"); and claims 8 and 16 stand

rejected under 35 USC §103(a) as being unpatentable over Walker further in view of Rabinovich (article entitled "Not all hits are created equal: Cooperative proxy caching over a wide-area network"). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in 1-20 are not taught or suggested by Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments have made to each of the claims of the present application to more clearly and patentably distinguish the present invention over the prior art relied upon by the examiner.

The present invention provides an integrated storage management system in which access computers each having an auxiliary storage are coupled to each other via a network. The integrated storage system of the present invention includes a plurality of access computers, and an integrated storage management server. According to the present invention an access computer as the write source sends an inquiry about an access computer as a write destination to be written to the integrated storage server, wherein the inquiry includes file information of a file to be written by the access computer as a write source. The integrated storage management server selects a candidate of the access computers as the write destination to be written and returns the candidate of the access computers to the access computer as the write source.

Further, according to the present invention the access computer as the write source selects, when writing the file from the access computer as the write source, an access computer to be used as the write destination to be written which has been returned as the candidate, and writes a file to the access computer as the write destination thus selected as the write destination. The integrated storage management server has policy information which defines a write policy that is used when said access computers are used as an access computer as a write destination, and the integrated storage management server uses the policy information and the file information in order to select the candidate of the access computers as the write destination to be written.

Thus, the present invention relates to an integrated storage management system in which computers each having an auxiliary storage are connected to each other via a network, and an access computer as an access source accesses a file in the auxiliary storage managed by another access computer as a access destination based on a policy information which indicates a access policy.

Therefore, according to the present invention, a user who mainly uses an access computer sets the usage information of the auxiliary storage of the access computer (policy information) to an integrated storage management server. The set policy information is used in order that the integrated storage management server judges which of the auxiliary storages of access computers should be used when other users access such auxiliary storages of the access computers. Accordingly, an access computer which writes or deletes a file accesses the storage of the

access computer determined by the integrated storage management server based on the set policy information.

The above described features of the present invention as now more clearly recited in claims 1-20 are not taught or suggested by any of the references of record, particularly Walker, Fanning, Needham, IBM reference, Intel reference, Yang reference, and Rabinovich whether taken individually or in combination with each other as suggested by the Examiner.

Walker discloses a distributed file system which is the one of functions of the distributed operating system. According to the distributed file system disclosed by Walker, a host (US: using site) can access (write/delete) a file in the storage of another host (SS: storage site), and US uses another host (CSS: current synchronization site) which manages the location of files in order to determine an access destination of US.

The above disclosure of Walker is similar to one of features of the present invention, namely a "hybrid P2P filesystem which allows each computer in a system to write or delete files in the storage of other computers. However Walker, the same as every other reference of record, does not teach or suggest the features of the present invention as now recited in the claims. Particularly Walker and each of the other references of record do not teach or suggest that a user who mainly uses an access computer (SS of Walker's) sets the usage information of the auxiliary storage of the access computer (policy information) to an integrated storage management server (CSS of Walker's), that the set policy information is used to permit the integrated storage management server to judge which if the storages of access

computers should be used when another access computer (US of Walker's) accesses the storage of access computers, and that an access computer (US) which writes or deletes a file accesses the storage of the access computer (SS) determined by the integrated storage management server based on the set policy information as recited in the claims.

The examiner has pointed out Walker's paper teaches policy information (synchronization policy of Walker's: §2.3.1, paragraph 1, 2) at paragraph 5 (Page 4) in this Office Action. Nevertheless, all hosts (US, SS, CSS) behave just like one host from user's view. Such is clear from the description of Walker in §1, paragraph 1 which states that "The system supports a very high degree of network transparency, i.e. it makes the network of machines appear to users and programs as a single computer; machines boundaries are completely hidden during normal operation".

Hence it is possible to presume that the synchronization policy of Walker is not the policy assigned to a certain host which indicates a certain user's intention, but the policy for which an administrator of OS controls behavior of system appropriately. In the first place, Walker paper seems not to consider the situation such as a certain main user uses hosts(US, SS). Walker simply describes relations and functions of three types hosts (US, SS, CSS) for indefinite users.

To the contrary, the present invention as recited in the claims considers the situation such as a certain main user uses host (for example, when he uses a personal computer exclusively assigned as a host that has the function of US or CS), that is, the situation such as users recognize the functions of each computer and such as they understand each host behaves independently to other hosts. Further,

the present invention as recited in the claims allows an user set policy for indicating how storage of the host (SS) should be used to another host (CSS) in order that the user of the host controls the storage. Therefore alleged policy of Walker is entirely different from that of the present invention as recited in the claims.

The Examiner has pointed out that Walker teaches three logical functions (US, SS, CSS) at §2.3.1, paragraph 2, 3 thereof. However these three logical functions as taught by Walker are used so that a system administrator controls behavior of system appropriately. In contra-distinction type 431 included in the policy information 430 (Fig. 4) of the present invention are used so that a user indicates how the computer is used (for example, network connection or mobile style etc.). Thus, the meaning of the three logical functions as taught by Walker's is completely different from that of the present invention as recited in the claims.

Furthermore the Examiner has alleged that Intel teaches priority of selecting a computer (Page1, Fig.2) at paragraph 9 (Page 12) in this Office Action. However, the priority in Intel means selecting files to be read, and the value of the priority is based on network traffic, network topology and file revision. To the contrary, priority of selection 434 included in policy information 430 (Fig. 4) of the present invention as recited in the claims means selecting storage of access destination, and the value of the priority is based on intention of a user who presents the storage to other users. Thus meaning and setting of priority of Intel are completely different from those of priority of this invention as recited in the claims.

The Examiner has also alleged that accessibility state in Walker at §2.3.1, paragraph 2, 3 and available space in IBM Technical Disclosure Bulletin: "Logical

Data interface” corresponds to features of the present invention regarding the policy information. However, such features as taught by Walker and IBM do not correspond to total Space 432 in policy information 430 of the present invention. As per the present invention the total available space of the auxiliary storage is offered to other users by a main user when the other users use the auxiliary storage through other access computers as stated in Claim 5. Therefore total Space 432 of the present invention as recited in the claims are entirely different from available space of IBM.

Thus, Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner fail to teach or suggest an access computer as the write source sends an inquiry about an access computer as a write destination to be written to the integrated storage server, wherein the inquiry includes file information of a file to be written by the access computer as a write source, and that the integrated storage management server selects a candidate of the access computers as the write destination to be written and returns the candidate of the access computers to the access computer as the write sourcethis inventions is not anticipated and not obvious from any prior arts as recited in the claims.

Further, Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner fail to teach or suggest that the access computer as the write source selects, when writing the file from the access computer as the write source, an access computer to be used as the write destination to be written which

has been returned as the candidate, and writes a file to the access computer as the write destination thus selected as the write destination and that the integrated storage management server has policy information which defines a write policy that is used when said access computers are used as an access computer as a write destination, and the integrated storage management server uses the policy information and the file information in order to select the candidate of the access computers as the write destination to be written as recited in the claims.

Therefore, the features of the present invention as now more clearly recited in the claims are not taught or suggested by Walker, Fanning, Needham, the IBM and Intel articles, Yang or Rabinovich whether taken individually or in combination with each other as suggested by the Examiner. Accordingly, reconsideration and withdrawal of the rejections of claims 1-20 under 35 USC §103(a) as being unpatentable over Walker when taken in combination with one or more of Fanning, Needham, the IBM and Intel articles, Yang and Rabinovich is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-20.

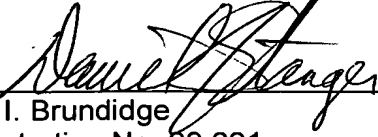
In view of the foregoing amendments and remarks, applicants submit that claims 1-20 are in condition for allowance. Accordingly, early allowance of claims 1-20 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to

the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.,
Deposit Account No. 50-1417 (520.41303X00).

Respectfully submitted,

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